



WILLIAM T FUJIOKA
Chief Executive Officer

County of Los Angeles CHIEF EXECUTIVE OFFICE

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January 29, 2008

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012
Dear Supervisors:

Board of Supervisors
GLORIA MOLINA
First District

YVONNE B. BURKE
Second District

ZEV YAROSLAVSKY
Third District

DON KNABE
Fourth District

MICHAEL D. ANTONOVICH
Fifth District

DEPARTMENT OF PUBLIC WORKS: REQUEST FOR APPROVAL TO PURCHASE A SNOW PLOW (ALL SUPERVISORIAL DISTRICTS) (3 VOTES)

IT IS RECOMMENDED THAT YOUR BOARD:

Approve the Department of Public Works to acquire one replacement snow plow at a total cost of \$275,000.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The purpose of the recommended action is to comply with the County Equipment Policy (Policy) that your Board adopted on October 16, 2001. This Policy requires your Board's approval prior to County departments purchasing/financing equipment with a unit cost of \$250,000 or greater. The anticipated materials cost increase for this item is expected to increase the cost above the \$250,000 approval level. Attached is a copy of the snow plow specifications.

This purchase is a replacement for an existing snow plow used for clearing the roadways of snow accumulation.

Implementation of Strategic Plan Goals

The Countywide Strategic Plan directs that we provide Service Excellence (Goal 1), Organizational Effectiveness (Goal 3), Fiscal Responsibility (Goal 4), and Community Services (Goal 6). This action will enable the Department of Public Works (Public Works) to continue to provide County residents with enhanced, responsive, efficient, and effective road maintenance.

FISCAL IMPACT/FINANCING

There will be no impact to the County General Fund. The cost for this acquisition is estimated to be \$275,000 and is included in the Fiscal Year 2007-08 Internal Service Fund Fixed Asset Equipment appropriation.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

On October 16, 2001, your Board adopted the County Equipment Policy whereby departments will obtain Board approval to purchase or finance equipment with a unit cost of \$250,000 or greater prior to submitting their requisitions to purchasing.

The existing unit has exceeded the established replacement criteria of 7,500 hours or 12 years. The cost to replace the snow plow could exceed \$250,000 due to cost increases for labor and materials. The expected life of a new snow plow is 7,500 hours or 12 years.

It is recommended that Public Works replace this unit with a new snow plow for the following reasons:

- It will be more reliable than the existing unit for snow plowing duty.
- It will have less downtime for repair and maintenance.
- It will be capable of clearing snowbound roads.

ENVIRONMENTAL DOCUMENTATION

In accordance with Section 15378(b)(4) of the California Environmental Quality Act (CEQA) Guidelines, approval of the recommended action does not constitute a project and, hence, is not subject to the requirements of CEQA.

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IMPACT ON CURRENT SERVICES (OR PROJECTS)

The approval of this request will enable Public Works to continue to perform its routine street maintenance activities in a more efficient and cost-effective manner. Your Board's approval will allow Public Works to replace outdated maintenance equipment and continue to provide street maintenance services to County residents.

CONCLUSION

Please return one adopted copy of this letter to the Department of Public Works, Administrative Services Division.

Respectfully submitted,


WILLIAM T FUJIOKA
Chief Executive Officer

WTF:DLW
GZ:ss

Attachment

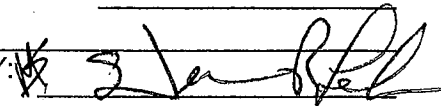
c: County Counsel

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
FLEET MANAGEMENT GROUP
SPECIFICATIONS
SECTION A



FOR: One (1), Truck, 51,000 Lb. GVWR, 2007 compliant Diesel Power, Snow Plow with mounted V-Box Spreader, All Wheel Drive 4X4, with installed 12' Snow Plow Blade. Chassis constructed for the specific purpose of Snow and Ice control operations with options and accessories as specified.

Budget Description: "Truck, Snow Plow, 4X4, w/Blade & Sander"

DEPARTMENT REQ. NO: _____	SPECIFICATION NO: 2007-08-226R-1
QUOTATION NO: _____	BUDGET NO(S) <u>226R</u>
MAKE: _____	MODEL: _____
VENDOR NAME: _____	BID PREPARED BY: _____
ADDRESS: _____	PHONE: _____
SPECIFICATION BY: R. Clendening	APPROVED BY: 

IMPORTANT NOTE:

This specification **MUST BE REVIEWED** with your bid quotation. Failure to return a completed specification **MAY VOID** your bid.

The "BIDDER'S RESPONSE" page should be attached to the specification stating compliance with or proposed alternatives to specified details.

The page number, paragraph, and line should be referenced when deviating from the specification and must be included. **Vendors are required to complete the right-hand column of this specification. If taking no exceptions to the stated specifications, indicate so by writing "As Specified" for each specification. If taking exception to a specification, indicate by listing the exception information based on your product offering".**

Bidders should note that specific warranty requirements are included in this specification.

This specification, when completed by the successful bidder and accepted by the County,

becomes a part of the contract between the bidder and the COUNTY of LOS ANGELES.

LIQUIDATED DAMAGES:

All time limits stated in the purchase order shall be calendar days and are of the essence. Should the delivery not be completed on or before the time stipulated, it is mutually agreed and understood by and between the successful bidders and the County of Los Angeles that a delay could seriously affect the public and the County of Los Angeles.

Therefore, the County and the successful bidder hereby establish the unit price of twenty-five dollars (\$25) per calendar day for each and every day of delay for each unit as liquidated damages and not as a penalty or forfeiture for the breach of agreement to complete delivery by the successful bidder on or before the time specified in the purchase order. Liquidated damages shall not apply to time elapsing between date of delivery and date of notification to the successful bidder of rejection of sub-specification material.

The above conditions may be invoked if the delivery exceeds the specified time or if replacement of material not meeting specifications exceeds the specified time.

Should the successful bidder be obstructed or delayed in the work required to be done hereunder by changes in the work or by any default, act, or omission of the County or inability to obtain materials, equipment, or labor due to Federal government restrictions arising out of the defense or war program, then the time of completion shall be extended for such period as may be agreed upon by the County and the successful bidder.

Shall there be insufficient time to grant such extensions prior to completion date of the contract, the County may, at the time of acceptance of work waive liquidated damages which may accrued for failure to complete on time, due to any of the above, after hearing evidence as to the reasons for such delay and making a finding as to the cause of same.

In the event that the successful bidder is on strike at the time of the award of the bid, the County reserves the option to accept the first acceptable bid from a manufacturer that is not on strike.

COMPLIANCE WITH SPECIFICATIONS:

Compliance with the requirements of these specifications shall be evidenced by the manufacturer's data sheets published prior to issuance of these specifications, a copy of which shall be included with and made a part of the bidder's quotation.

Any exception to these specifications shall be specifically noted in the "BIDDER'S RESPONSE" column, adjacent to the appropriate item.

A bidder furnishing the equipment described in these specifications shall furnish evidence of similar equipment which has been in successful operation for a period of not less than two years in the continental United States. The unit, as specified, shall be of current year manufacture and shall be the manufacturer's standard advertised production model built in accordance with the top standards of the industry.

Modifying the unit or accessories to meet these specifications shall be construed as not offering the manufacturer's standard production model.

Acceptance of this equipment by the Department shall not waive the responsibility of the vendor to provide a unit that is in compliance with the specifications as bid. No part or parts defective in construction or deficient in any of the requirements of these specifications will be considered as accepted in consequence of the failure of any employee of the Department to point out said defects prior to the acceptance of the equipment by the Department.

It is deemed the responsibility of the bidder, as an expert in his field, to evaluate these specifications and bid a unit that is fully compatible with current industry standards.

Any subcontractor or supplier of attachments to this unit MUST be listed on the bid adjacent to the appropriate section.

REFERENCES:

References are listed to indicate the specific type, quality, function and/or durability of the item or items required. Bidders may offer superior or an approved equal product or item. The County will make the final determination on comparability of items offered. If the item or items offered is not comparable, the bidder shall provide the item specified or an approved equal at no additional cost.

AWARD CONSIDERATIONS:

The right is reserved to purchase equipment that, in Department's opinion, represents the best overall value. Consideration will be given to price, performance, operation, and maintenance cost, history of user satisfaction, and safety of operation.

The County requires delivery of this (these) units as soon as possible, but no later than 180 days from award of this bid. Delivery time will be considered in the bid award. Please enter the number of calendar days needed for delivery of the complete order:

_____ days.

EXCEPTIONS:

Bidder may take exceptions to any part of this specification providing that a full and complete explanation of such exception is included in the bid.

ALTERNATIVES:

Bids on equivalent equipment will be considered provided that a full description and specification for the alternatives are submitted.

COMPATIBILITY OF COMPONENTS:

Bidder to guarantee that various component groups, including but not limited to, engine transmission and drive line-differential, to be compatible and allow the equipment/vehicle to perform in a safe and satisfactory manner.

PARTS AND SERVICE:

Due to emergency status of the Los Angeles County Department of Public Works, bidders to guarantee to maintain an adequate stock of spare parts.

If the bidder does not have spare parts available in the Los Angeles County area, it must be stated in the response column with estimated parts delivery time.

The bidder shall guarantee that parts prices will be as low as such parts are sold to any other user.

Vendor to guarantee parts availability for this unit, for a period of at least seven (7) years from date of manufacture.

IF VENDOR DOES NOT HAVE SERVICE FACILITIES IN LOS ANGELES COUNTY, approved major component service companies in the Los Angeles area, must be designated in the response column.

PRE-DELIVERY INSPECTION REQUIREMENTS:

The specified equipment/vehicle will not be accepted for delivery unless a pre-delivery inspection has been completed and approved by Public Works. To schedule a pre-delivery inspection appointment, contact (the Contract Manager) of Fleet Management Group at Los Angeles County Department of Public Works at (626) 458-7336 or (562) 869-9312 between the hours of 7:30 a.m. to 3:30 p.m. Monday through Friday. If the awarded vendor opts to request department representation that requires out of state travel, expenses other than meals and salary will be paid by the primary vendor. If out of state travel is requested, the awarded vendor must notify this office four (4) weeks in advance of the requested date. In addition to any other meetings, a final inspection will be conducted locally. At this meeting, Public Works division coordinator(s) will present a list of operators requiring training and the required criteria for user training will be established as well as a scheduled date for the training to be provided.

TRAINING & MANUALS REQUIRED:

- The awarded vendor will be required to provide up to eight (8) hours, as determined by Public Works, of training for the equipment. Training must be conducted by a qualified factory representative at a location that has been mutually agreed upon.
- The awarded vendor is responsible for providing Public Works a copy of the training materials in advance of the training session. Public Works will review the materials and provide the awarded vendor any required additions or changes to the material. The trainer shall send Public Works a completed sign in sheet for each training class that includes the printed names and signatures of all participants and trainees. These documents must be forwarded via certified mail to Fleet Management Group attn: Safety Coordinator, 900 S. Fremont Ave. , 7th floor, Alhambra, CA. 91802
- The awarded vendor shall provide a minimum of two (2) sets of operation AND Two (2) sets of repair manuals, complete color coded wiring diagrams and complete hydraulic diagrams. These may be provided on Compact Discs that are suitable for use on Public Works' personal computers.

INVOICES:

Vendor shall furnish the Department no-charge invoice for all work performed under warranty.

Each invoice shall itemize parts used and show all labor charges.

Invoices to be provided to the Department within seven (7) days of completion of repairs.

All invoices and billing to be mailed to: Los Angeles County Department of Public Works
Fiscal Division, P.O. Box 7508 Alhambra, CA 91802-7508.

PAYMENT:

Payment will be with-held until the equipment /vehicle has been inspected and all terms of the specification have been completed.

The discount clock does not commence until the equipment has been accepted at our facility .

The Department will notify the vendor if any discrepancies are discovered or when the equipment meets specification and is accepted when possible.

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LICENSE PLATES:

Vendor shall make all necessary applications and complete all transfer documents. The awarded vendor to procure the CALIFORNIA exempts license plates.

The registered owner shall be shown EXACTLY as out-lined below, on all documents where the registered owner is listed.

LA County Dept. Public Works
900 S Fremont Ave
Alhambra, CA 91802-1460

License plate is to be mounted within a lighted mounting bracket.

Vendor shall supply one (1) certified weight certificate for each unit delivered.

PERFORMANCE TEST:

A Performance test at the expense of the bidder may be required for the purpose of final evaluation after the bids are received, to determine that the operating requirements of the Department of Public Works are met.

The date, time, site, and conditions of such test shall be selected by the Los Angeles County Department of Public Works.

REVISITS:

VENDOR SHALL INCLUDE IN THE BID PRICE (if requested), the cost of a revisit to the equipment approximately thirty (30) days after it is placed in service. The revisit shall include the following:

Check all operating systems for proper operation and adjustment.

Check equipment visually for leaks and material defects.

Vendor shall notify the Department at least twenty-four (24) hours prior to the revisits.

SECTION A
PAGE 8

GENERAL:

The equipment covered by these specifications shall be new and complete with all standard equipment and accessories. Any item or accessory not mentioned in this specification, but required for operation of the unit, must be itemized and included in the bid. Any component identified as standard equipment must be furnished at no additional cost.

The equipment shall conform in all respects to the Division of Industrial Safety Orders Cal/OSHA and California South Coast Air Quality Management District (SCAQMD). Plus any other pertinent regulations. **Bidder is required to furnish proof of certification/compliance at time of receipt of chassis or equipment to the outfitter or dealership. NO EXCEPTION.**

This equipment shall meet or exceed noise emission limits applicable to Federal and Cal / OSHA requirements for operators on (8) hours operation without hearing protection.

All separate units shall be installed and connected for operation.

Bidder shall furnish complete information on the equipment to be furnished. Information must include published literature indicating all standard and optional features.

Only new, current production models will be considered.

INTENT:

One (1) Truck, Snow Plow, 51,000 lb. GVWR, Diesel powered, All Wheel Drive (4X4), Equipped as specified with: Push Frame Mounted, double acting 12'X48" Snow Blade and V-Box granular material spreader, Front Crank mounted Hydraulic pump. Cab mounted controls for the Blade and sander unit.

The Truck Chassis must be a factory all wheel drive (AWD) designed for the specific purpose of Snow removal. Unit must comply with all FMCSR and FMVSS quality and safety standards.

All parts must be Heavy Duty, of size material and strength to sustain maximum loads and severe operating conditions imposed by Snow removal,

while resulting in minimum wear and breakage.

The unit will be assigned to Snow Plowing Duty, which requires an exceptionally robust and heavy duty assembly of component parts and accessories.

The successful bidder will be expected to provide all component parts and accessories within a complete and work ready unit. All accessories required and all items necessary to accomplish extreme 24-hour snow plowing duty must be included in the offer even if the item(s) are not specifically listed within this specification.

All provided components must be assembled , installed, integrated, wired, connected, mounted and or complete and work ready.

References:

Chassis: Oshkosh P2526SP "P" series, CARB certified Diesel powered, with (4X4) all wheel drive.

Snow Plow: Schmidt Engineering & Equipment "Wausau" 12' X 48" Double acting swing, Straight "J" Snow Plow Blade.

Sander unit: Ten Foot, Frame mounted, removable, V-Box Granular Material Spreader. Reference Swensen Material Spreader Model EV-100-10

Basic weights and Chassis Dimensions:

GVWR: 51,000 lbs. Rating.

Wheel Base: 158 inches.

Cab to Axle Dimension: 91 inches.
Axle to end of Frame "AE": 35 inches.

After-Frame: 35 inches.

Chassis:

Chassis, Two (2) Axle configuration, All wheel drive, with straight reinforced 120,000 PSI frame rails, Reverse slope windshield, fully enclosed and insulated cab.

Fender mounted headlights with integral turn signals, Marker and clearance lights, Cab light bar.

Cab to be designed for safe and easy access, free of sharp protrusions. All walks to be of raised grip strut material, with generous grab bar placement. All sheet metal is to be braced to prevent cracking and distortion.

Cowl to be a weatherproof butterfly design, front fenders and mud flaps all around.

The unit must be a production model, purpose built by the original equipment manufacturer, as an all wheel drive Snow removal unit. Aftermarket conversions of 4X2 vehicles are not desired and are not acceptable.

The unit must be a production model specifically designed and built to plow snow and spread granular materials for Ice control. All sub-assemblies are to be integrated for maximum ease of use and maintenance.

Axles:

Front: GAWR 25,000 Lbs. (Oshkosh 25K) Single reduction with heat treated Alloy steel shafts and (Oshkosh) cage ring type steering ends. Ratio 6:17 to 1.

The front axle system is to be a driving steering system with a GAWR of 25,000 lbs minimum, including suspension and tires.

Unit to be factory all wheel drive (4X4).

Rear:

Single rear axle. GAWR 26,000 Lbs. (Arvin Meritor Model RS-26-185 26K). Rear Axle to include the factory option of a Driver controlled differential lock.

The axle assembly including suspension and tires must be rated capable of withstanding all loads of the unit bid.

Both front and rear driving axle systems, including hubs, must have a sealing ball and socket construction with a sealed lubricating reservoir system to prevent contamination from snow ice slush sand or other foreign debris.

The enclosed steering ball ends shall be bolted to and removable from, the central axle housing, to facilitate maintenance.

Tapered roller trunnion bearings are required on the steering axle to provide tire and wheel stability and to minimize maintenance costs over the life of the vehicle.

Double reduction type axles and hubs will NOT be acceptable.

Suspension:

Front: "Hotchkiss" semi-elliptic spring, 25,000 lb minimum rating, with a 7 leaf main spring and a 5 leaf auxiliary.

Rear: "Hotchkiss" semi-elliptic spring, 27,000 lb minimum rating, with a 15 leaf main spring and a 6 leaf auxiliary.

Spring stops shall not prevent travel, before the compressed springs are parallel to the truck frame. Bronze bushings.

Full spring suspension travel must not allow the front axle housing to contact the frame or engine oil pan.

Brakes:

Full air brake system with four wheel sensor ABS. The brake system shall be a full air system with drum type brakes. Disk brakes are not desired.

Emergency Parking Brake:

Spring applied parking brake on rear axle, capable of holding the fully loaded vehicle on a 20% grade.

Modulated secondary, modulated split type emergency brake system.

Brakes, Service:

Dual System, antilock (ABS) air operated mechanical.

Rotary S-Cam actuation on all four corners.

Air Brake Compressor:

15.7 CFM capacity, with an air reservoir of 6,530 cubic inches.

Air dryer: **Bendix AD-IS** or Department approved equal.

Brake system to be compliant with ICC and FMVSS 121 Regulations.

Wheels and tires:

Provide a complete set of Five (5) rims with mounted tires including, one (1) a loose spare, meeting National Wheel and Rim Association Standards.

Matching rim and tire size on all wheels
Rim Size: 20.00 X10.00.

Rims must have five vent holes for heat dissipation and wheel service access.

Front Tires shall be 445/ 65R22.5 Radial Michelin XZL.

Rear tires shall be 445/ 65R22.5 Radial Michelin XZL.

The tread design shall be an aggressive, block tread design meeting National Wheel and Rim Association Standards for the expected loads and speeds.

Chassis Cab:

Oshkosh extra heavy duty All Steel Construction Cab With Galvannealed Exterior. Full length Piano hinge Doors with stainless steel hinge pins.

The cab must be mounted using air suspension mounts to the frame.

Cab width 72 inches.

Seating:

Seating shall consist of **two (2) full air ride seats**, high back with foldaway armrests and retractable seat belt sets on both sides. Both seats shall be fully adjustable "**Bostrom Sierra Air, high back Model 400RX**", with fold away armrests on both sides, or Department approved equal.

Doors:

Stainless steel piano type door hinges extending the full height of the door are required to provide solid door mounting for the life of the vehicle. The doors shall be equipped with heavy limit straps to prevent the door from opening beyond 90 degrees.

Cab Corrosion protection:

The cab shall be treated with **rust proofing** on all inside metal surfaces under 3/16" thick. The undersides of fender wells, battery box, fuel tanks,

and underside of cab, and inside all tubular supports shall also be treated with rust proofing.

A corrugated floor mat, rubber or vinyl shall cover the complete cab floor. The floor mat must be fastened securely to the floor, but in such a way as to allow easy removal.

Mirrors:

Heated West Coast type mirrors as well as heated, bolt-on, 8" convex mirrors.

Steering:

Power Steering, Oshkosh Standard front wheel power steering system.

Tilt and telescoping steering wheel.

Cab Heating:

The cab heater/defroster shall have a minimum rating of 50,000 BTU and shall feature side window defroster ducts. For ease of maintenance, the heater core must be easily removable from the front of the heater box. The heater box shall include a replaceable fresh air intake filter.

Dual electric windshield wipers installed above windshield with intermittent swipe feature are required. The windshield washer must have a minimum of 6 quarts of reservoir fluid capacity.

Air Conditioning:

Unit to be equipped with factory installed integral Air Conditioning along with the high output cab heater system.

Windows:

The Windshield configuration must be a single piece, **reverse slope** type, to prevent the accumulation of snow and ice.

The passenger door must be equipped with a curb

visibility window.

Full width rear window. All windows shall be tinted safety glass.

Side window defroster fans.

Fenders:

Front fenders:

Factory front fenders shall be three-piece all steel type with heavy-duty tubular supports, designed to accommodate front wing posts. Aftermarket modifications are unacceptable.

Rear fenders:

The rear fenders shall be Full fenders with both fore and aft full mud Flaps. The fenders shall be factory installed, all steel, and corrosion protected.

Cowling / Hood:

The hood shall be a butterfly opening type that provides access to each side of the engine compartment. The hood sections shall be fabricated of aluminum and feature full-length stainless steel piano type hinges. The hood shall be supported at the cab firewall by a phenolic "V"-block that allows the hood to float fore and aft in order to accommodate flexing stresses.

Due to the position of the plow hitch and wing posts, tilting hoods are not desired and will not be acceptable.

A service hatch shall be provided on the driver's side of the hood to allow checking of oil from ground level with out opening the full hood.

Finish: Flat Black Cowl Factory applied Finish.

Cab Accessories:

The cab shall be fitted with dual translucent sun visors.

12 Volt DC Power Tap Connection.

Cab Entry Handles - Left and right outside grab handles.

Horns: Electric and Air horns.

For operator safety and ease of maintenance, the throttle pedal and brake pedal shall be mounted on the firewall. Floor mounted pedals are not desired and are unacceptable.

Both, dual tone Electric and Air Horns with snow caps.

Two (2) cup holders.

Gauge package-including:

Coolant temperature.

Trip / odometer.

Fuel gauge.

Speedometer.

Tachometer (Engine RPM).

Hobbs Hour Meter NO EXCEPTION

Warnings lamps to include low coolant, high temperature and low fuel warning lights,

Chassis Frame:

The chassis frame shall be, a Single, formed, Carbon Manganese Steel, channel with Bolted construction, heat treated with a tapered section modulus of 19.67 to 23.49 in.³, per rail.

SAE Grade 8 hardware, throughout.

Frame to withstand dynamic and static loads expected for snow plowing applications.

The yield strength of the frame material shall be at least 120,000 psi with a minimum 2,818,000 inch pound RBM per rail. Minimum Bar size: 12.375" X

3.875" X .375".

Note: Frame Liners, Wrappers, Bolt on extensions, Fish plating, Stacked Frames, Sub-frames, or Step types of frames. will not be acceptable construction methods. Frame must be a solid piece rated at 120,000 PSI Yield, Minimum.

Two (2) Frame mounted Tow Hooks.

To facilitate equipment installation and maintenance the frame construction shall be a bolted type with Grade-8 flanged fasteners and locking hardware throughout the frame and cross member assembly. Non serviceable fasteners such as "Huck bolts" are not desired and will be unacceptable.

The area outside the frame rails, above the front axle and below the fender shall be clean and free of any mounted equipment that could be damaged by snow ice sand or material buildup. This specifically includes but is not limited to fuel filters, water separators, oil coolers, coolant filters, hoses, oil lines and other such sensitive systems.

Engine:

CARB Certified, 10.8 Liter, Diesel engine.

A copy of the California Air Resources Board (CARB) Executive Order Certification for new on road heavy duty engines authorizing use in California, must accompany the response to this Bid.

Please enter the CARB Executive Order Number Here: _____ >

The engine must be compliant with **2008** Federal EPA engine emission requirements.

The engine must be outfitted with the best

available emission control technology (**BACT**) at the time the unit is ordered from the factory.

Electronically controlled with ECM and On board Engine diagnostics package with ECM port.

The engine must be outfitted with an after treatment device consisting of an active Diesel Oxidation Catalyst (**DOC**) and a Diesel Particulate Filter (**DPF**).

The vehicle shall be equipped with a Cummins 10.8 L Diesel engine, rated at **450 horsepower** @ 2,100 RPM and 1,550 lb./ft torque at 1,200 rpm.

The engine shall be a four stroke, six cylinder, in line with a governed RPM of 2,100.

Equipped with the latest diesel electronic control and engine management system. The engine shall have an automatic power derate system to protect against low oil pressure or high water temperature.

Engine compression Brake:

Unit to be equipped with a Factory installed engine compression Brake. Three (3) position OFF/High/Low selections.

Engine protection:

Engine equipped with an emergency warning system with light and buzzer in the event of high coolant temperature and or low oil pressure.

The engine shall be provided with full flow replaceable oil filters.

Air Cleaner: Dry type, two stage, with a selectable alternate air source within the cowl, dash mounted selector switch and restriction indicator gauge.

The engine shall be equipped with a spin on fuel

filter with integral fuel water separator.

Hoses:

Silicone Hoses: Unit to be equipped with preformed Silicone Rubber Radiator and Heater hoses.

PTO accommodation:

A front mount engine PTO flange for mounting a hydraulic pump driven directly off the crankshaft must be furnished. Front PTO shaft shall not pass through the radiator. Modifications to radiator to accommodate front PTO are unacceptable.

Engine component accessories:

1,000 watt, Reference: Kim "Hotstart" Engine Block pre-heater, electric with permanent receptacle for 110Volt AC connection or Department Approved Equal..

Horton radiator Fan Clutch.

The engine compartment shall not intrude into the cab envelope (no doghouse).

Electronic Engine management:

At a minimum, an electronic power de-rate system must be activated by low engine oil pressure and or high engine temperature. System shall, include a warning light(s) and a de-rate (ramp-down) feature that will reduce engine power and speed, or shut down the engine for exceeding operational parameters.

The engine must be equipped with an ECM diagnostic port.

Diesel Emission Particulate Filter:

Only a Diesel engine certified as meeting 2008 Federal and State emissions shall be offered.

The Diesel engine shall be equipped with a non-

cumulative, sulfur tolerant, Diesel Particulate Filters (CARB-verified Level 3)

The Diesel engine shall be equipped with an approved CARB-certified exhaust control device(s) that reduces particulate matter and possibly other precursor emissions. To be considered fitted with an approved control device(s), all diesel exhaust from the vehicle must be vented through such a device(s) that has been fitted at the time of vehicle purchase. The vehicle equipped with such a control device must use diesel fuel with a sulfur content no greater than 15 ppm.

Radiator:

The cooling system must be equipped with 1,100 square inch frontal area radiator, with steel tanks soldered to a copper tube and fin core. **The radiator must be mounted above the frame rails to allow for a front mounted PTO, without radiator clearance cuts.**

Built in deareation system.

Engine Air intake cooler (inter-cooler). Mounted in front of the radiator.

Integrated transmission oil cooler. Core built with a transmission oil to water type transmission oil cooler.

System to be filled with a permanent type anti-freeze offering protection to -40 degrees F.

A thermostatically controlled suction type radiator fan equipped to assure that a clutch failure will cause the fan to engage and provide maximum cooling.

Sized to allow continuous plow operations at low speed operation without overheating.

Transfer case and Transmission:

The transmission shall be a five Speed Automatic Transmission. Transmission torque rating must exceed the engines rated horse power and torque output capacity.

Reference Allison 4500 Series Automatic or Department approved equal.

The Transfer Case:

Shall be a dual range (**two (2) speed**) type. Spiral Bevel gear differential.

Reference: Oshkosh Model 55000 two (2) speed with electric over air control range shifter.
Ratios: 2:66 to 1 Low Range and 0.98 to 1 High Range.

Equipped with an air actuated front axle de-clutch and an Air actuated range selector.

Transfer case torque capacity to exceed the maximum torque developed by the engine and transmission.

Transfer case must be approved for the application and manufactured by the chassis builder.

Transfer case shafts must be supported on tapered roller bearings.

Transfer case bearings and upper shaft shall be pressure lubricated by an external pump, driven by the upper (input) shaft.

Drive (propeller) shafts: Shafts shall feature half round yokes for strength and ease of maintenance.

Front: DANA 1710 Series
Rear: DANA 1710 Series

Interaxle: DANA 1710 Series

PTO and Hydraulic Pump:

A front engine PTO flange for mounting a front mounted hydraulic pump to be driven directly off the crankshaft shall be provided.

Front PTO shaft shall not pass through the radiator. Modifications reducing the radiator frontal area, to accommodate the front mounted PTO shaft are unacceptable.

The PTO Hydraulic Pump actuation shall be a "Hot Shift" electric actuated clutch type, with a lighted "ON" Rocker switch.

Hydraulic Pump Capacity:

The Truck must be equipped with a hydraulic pump with a capacity to drive All hydraulic circuits including: Snow Plow Movements and Auxiliary hydraulic circuit and the V-Box Material Spreader Hydraulic Drive and spinner circuits.

The unit is to be equipped with a frame mounted hydraulically operated Granular Material Spreader or "Sander" powered from the front mount Hydraulic pump. The hydraulic system must have the capacity to operate the "Swensen Model EV-100 Granular Material Spreader with cab mounted hydraulic controls.

Hydraulic Reservoir:

Capacity to meet all system demands with operation of all hydraulic circuits. Capacity adequate to include a thermal reserve capacity. Reservoir to include filter screen and locking fill cap.

Reservoir to include sight glass fluid level with temperature gauge.

Fuel Tank and Capacity:

Unit to include a factory installed **75** gallon, single,

all **steel** step tank, mounted left side.

Fuel Shut-off valve for tank servicing.

12 Volt Raycor Thermocoil **fuel heater**.

Steering System:

Front: Sheppard, integral hydraulic assist gear type, Heavy Duty, with separate hydraulic steering pump and reservoir independent of the Auxiliary hydraulic system.

Mechanical linkage must be maintained from the steering wheel to the front axle, to allow manual steering in case of a primary failure. Hydraulic cylinder boost requirements are unacceptable.

ELECTRICAL SYSTEM:

The electrical system shall be a 12-volt negative ground with a **160-amp alternator**. There shall be three (3) each batteries, 950 CCA each, with minimum combined cold cranking amp rating of 2,850 CCA at 0 degrees F (-18 degrees C). All major circuits are to be protected by automatic reset circuit breakers accessible through a hinged panel on the face of the dash (fuses are not acceptable). Wiring for all cab-mounted and other lighting equipment shall be an integral part of the O.E.M. chassis wiring harness. Integral harness connectors for roof mounted auxiliary lights shall be located above the windshield and shall be of the weatherproof bulkhead type with positive threaded connection (Canon part number 192900-0313 or approved equal).

A 20 Amp Auto regulating **Battery Charger** with **receptacle** and master electrical disconnect.

Battery Box Lugs for jump starting, sealed and protected positive and negative, **external** battery terminal lugs.

Engine compartment lights.

The chassis manufacturer shall provide a three-way headlight switch as an integral part of the O.E.M. cab wiring harness. The three-way switch shall enable the operator to select either the fender-mounted headlights or aftermarket installed roof lights for illumination. All light switches shall be heavy-duty rocker type, positioned, labeled, and illuminated for easy driver identification and use. Turn signal and emergency flasher control to be mounted on steering column.

All lighting, reflectors, etc. to be furnished and mounted on vehicle as required by FMVSS Federal Motor Vehicle Regulations. All wiring to be loom protected. All wiring to be equipped with circuit breakers. Wiring to be color-coded and numbered the full length of the wire at 4 inch intervals, minimum.

PAINT:

Vehicle shall be cleaned prior to painting. Finish coat shall not exhibit runs or orange peel. Paint shall be one (1) prime coat and two (2) coats of a two part acrylic urethane or equal. Color shall be Manufacturers Standard (Orange). Top of engine cover shall be flat black to minimize glare.

Tarp (Pull Tarp):

The Sander assembly shall include an integrated, spring retractable tarpaulin, load covering system compatible with the V-Box Spreader use and loading. Tarp must be compliant with DOT and DMV regulations.

Spring retractable Pull tarp, within an all metal tarp storage enclosure. No tarp arms.

V Box Body to have "J" hooks appropriately placed for use in securing the pull tarp.

Note: Amber beacon mounting must be integrated with the pull tarp storage box.

Reference: Pull Tarp Inc. Spring retractable load tarping system.

Truck Accessories:

Snow Chain Hooks: Unit to have Snow Chain "J" hooks attached to each reinforcement rib on the V-Box Sander Body. Minimum eight (8) each.

Amber LED, high intensity flashers mounted within a rear hitch plate assembly.

Stop/Tail/Turn lights, sealed, soft mounted LED Units Installed; Combination Stop/Turn/Tail lights, 4 inches in diameter, **LED Type**. Two (2) Amber LED Flasher. Backup lamps may be 4 inch incandescent lights. Compliant with FMVSS requirements.

Wiring to be modular with all weather tight connectors. Wiring to be fully enclosed in a sealed waterproof wiring conduits.

Note: Split loom is not acceptable in the Snow plowing environment and will not be accepted.

Back-up Alarm:

A backup warning device, instantaneous, electric, 97 db(a) minimum, designed for severe service. The device shall comply with SAEJ994.

Reference: Preco Model 45-AA or Department approved equal.

Reversible Snow Plow:

12 foot long, straight style rib reinforced, mold board with a 48" height.

Installation of a Reinforced Mold Board Hitch, with a structure compliant with OSHKOSH Standards for the plow installation must be included.

The plow mold board must be hydraulically reversible for right and left hand discharge of snow, and must include a compression spring-type safety trip mechanism, a

minimum of 12 feet long and 48 inches high.

Mold Board must be **Spring Trip protected** from ground impacts.

Reference: Schmidt Engineering (SEE Inc.) Wausau R4512H or Department approved equal.

MOLDBOARD ASSEMBLY

The moldboard shall be smooth rolled to ensure ease of snow discharge, and manufactured from 3/16-inch thick steel sheet. Break or step-forming is not acceptable. The moldboard shall be rolled with a minimum radius of 16 inches and must include an integrally formed top reinforcement channel approximately 1/1/4 inch X 2-1/2 inch in size. The top leading edge of the moldboard shall be designed as an integral deflector which extends no less than 8 inches in front of the cutting edge in the normal plowing position. The moldboard, with the cutting edge installed, shall be no less than 48 inches high and 144 inches long.

MOLDBOARD REINFORCEMENT

The moldboard is to be reinforced with no less than five (5), 1/2 inch by 3 inch one piece vertical ribs. All ribs are to extend from the lower formed box section, to the integrally formed top reinforcement channel. All ribs to be intermittently skip-welded to the moldboard sheet. The two outermost ribs shall be located approximately 1/4 inch in from each end of the moldboard, and be designed to cap off each end of the lower formed box section. The two inner ribs shall be located no less than 44 inches off the centerline of the moldboard. These ribs shall incorporate return stops to ensure that the moldboard returns to the original plowing position after tripping. The last rib shall be located directly in the center of the moldboard. The center rib, and the two inner ribs, must be aligned directly with the three pushframe hinge points to ensure even distribution of plowing forces.

The pushframe connection ears on the moldboard shall be manufacturers from one-inch thick steel plate. These ears shall be drilled to accept a 1-7/16 inch diameter pin.

The bottom of the moldboard shall be reinforced by a one piece formed and dimpled box section. The box section shall be manufactured from 5/16-inch thick Ex-Ten 50 steel plate. The box section shall be brake press dimpled at each cutting edge bolt hole. Both the box section, as well as the moldboard, shall be punched with twenty (20), 11/16-inch holes in accordance with AASHO specifications. The holes shall be located 1-1/4 inches off of the edge of the moldboard, and be spaced from the end of the moldboard as follows:

3-3-12-12-3-6-3-3-6-3-3-6-3-12-12-3-3

The angle of the cutting edge when installed on the plow and in the plowing position, shall be laid back 34 degrees from the vertical.

A 1/2 inch X 6 inch carbide steel cutting edger shall be furnished installed.

SAFETY TRIP

Four (4) 4-1/2 inch diameter X 18 inch long X 5/8 inch diameter wire, heavy-duty, self-cleaning, adjustable compression springs for fast, positive full moldboard trip to protect the plow from obstructions. Two (2) 2-3/8 inch diameter X 12-1/2 inch long X 1/2 inch diameter wire trip limit springs positioned inside trip springs to prevent damage to the top of moldboard.

PLOW HITCH ASSEMBLY:

Reference: OSHKOSH P Model Hitch assembly.

A modular push frame, integral to the truck frame with hitch. The Hitch assembly shall be equipped with a spring loaded quick disconnect lever.

REVERSING ASSEMBLY

The pushframe assembly shall be comprised of a front push beam manufactured from 5/16-inch Ex-Ten 50 steel plate, and formed into a 5-1/4 inch channel section. This beam shall incorporate two trip spring U-Bolt anchors, and have integral vertical flanges for shoe and/or caster mounting. Three sets of clevis ears shall be welded on the front of the push beam to accept the

moldboard assembly. These ears shall be $\frac{3}{4}$ inches thick and be drilled with a 1-1/2 inch diameter hole. The reversing frame pivot shall be located directly in the center of the front push beam. Two 1-inch thick steel fishplates, with 3/8-inch bosses, shall be welded on the top and bottom of the push beam in the area of the reversing bolt. The plates and welded bosses shall be drilled to accept a 1-1/4 inch diameter-reversing bolt. The front pushbeam shall be welded to a formed, 6 inch X 4 inch X $\frac{1}{2}$ inch angle iron semi-circle. The semi-circle shall include welded angle iron reversing stops that allow the plow to angle to 42 degrees left and right.

Blade Control:

Blade control shall be a single lever control, mounted in the cab to the right of the drivers seat. Blade control placement shall not interfere or block sander controls.

A-FRAME AND OSCILLATING ASSEMBLY:

An "A"- Frame table formed out of two 5/16 inch Ex-Ten 50 plates shall be assembled to the reversing frame. These plates shall be formed into triangular shaped channel sections. The front of the "A" Frame shall have a vertically welded 2-1/4 inch O.D. X $\frac{1}{2}$ inch wall tube. This end of the "A" Frame shall fit between the 5-1/4 inch formed section of the reversing frame front push beam. It shall be fastened to the beam with a 1-1/4 inch X 9-1/2 inch long, Grade 8, hex head cap screw, flat washers and an elastic stop nut. The opposite end of the "A" Frame table shall be closed off by a welded, rear main section, 1 inch X 5 inch plate. The center of the plate shall be drilled to accept a 1-1/4 inch diameter oscillating bolt. The oscillating assembly shall be a formed channel section manufactured from $\frac{1}{2}$ inch thick Ex-Ten 50 steel plate. Bolted to the oscillating weldment shall be (2) 1 inch thick, adjustable push plates on 30-1/2 inch centers (optional 21 inch push center also available) with 1-1/4 inch pins attaching to the truck hitch.

Options to be included:

Two (2) each. Mushroom foot jack screw adjustable.

Rigid, rubber, full width snow deflector.

The blade is to be equipped with a self leveling bridle and double groove sheave using aircraft grade stainless steel cable rigging, rated at an equal or greater strength than the standard lift chain.

V- Box Granular Material Spreader

The Chassis frame shall be prepared to accept a removable V-Box Granular Material Spreader unit. The unit will be installed for Snow and Ice control operations and then removed for an existing water tank unit that is installed during the summer months.

V-Box Spreader unit must be installed by a full-time established distributor who provides service and inventories parts for the unit provided.

All connection between the Sander and the Truck Chassis must be removable and weather tight.

Reference: Swensen 10 foot V-Box Granular Material Spreader **Model No.** EV-100 with Hydraulic drive motor.

The Spreader unit must have a hydraulically driven spinner, to be supplied by a PTO driven Hydraulic circuit from the front mounted Hydraulic Pump.

A V-box material spreader unit must be capable of hauling and spreading free-flowing granular materials from a minimum width of four (4) feet to a maximum of forty (40) feet. This unit shall consist of a steel body, discharge/feed conveyor, spinner disc, power drive, and all components necessary to make a complete operating unit. The manufacturing and production of this unit shall be of the best commercial practices and only materials of the finest quality are to be used. This unit shall be factory ready to accept or retrofit servo controls.

Spreader Body:

The spreader hopper will be constructed of 10-gauge hi-grade steel with a double-crimped top edge forming a 2-inch section for greater rigidity. The hopper body length shall be not less than 10 feet with 2 feet of longitudinal overhung for supporting the spinner assembly. The hopper shall be not more than 84 inches outside width with the overall height not greater than 48 inches. The

capacity of the hopper shall be 5.6 cubic yards water level full. The body sides shall have not less than forty-five degree pitch to insure free-flow of material to conveyor. The body longitudinals shall be manufactured of 7-gauge steel. The channel cross stills are manufactured of 3 inch X 4 inch channel iron that ties the lower edge of the longitudinal to each side support. These cross supports shall be wide enough to allow the hopper box to be mounted on various width truck frames. A 6 inch X 9 lb wide flange "H" beam will be elevated 3 inches above the top-edge of the hopper, thus providing a longitudinal brace and hinge point for the top screens. There shall be a 2-inch X 2 inch angle iron welded from the "H" beam to each side for additional side support. The body and conveyor longitudinal shall be electrically welded into a rugged solid unit with a continuous weld between the outside joint to prevent a pocket for rust. A screw-type gate jack-ruler shall be provided at the rear of the hopper to allow for accurate discharge. There shall be 10 gauge formed side supports that extend the full side angle height spaced on approximately 2-foot centers. A heavy-duty lift hook shall be provided at each corner. The rear endplate shall be reinforced inside and supported outside to give it maximum strength. A mounting hardware kit shall be provided to safely secure the hopper to the truck.

CONVEYOR

The conveyor system shall be of the chain-barflite type running longitudinally with the body feeding material to the feed gate opening. The overall conveyor width shall not be less than 24 inches. To protect the chain link strands, the top edge of the longitudinal shall be formed down over the strands exposing only the drag bar to the material. The conveyor floor shall be of flat design and manufactured or replaceable 3/16 inch steel and roll over edges. The gearbox shall have hardened and ground bronze gears mounted on a 1-1/2 inch diameter drive shaft and supported on tapered roller bearings. These gears shall be machine-cut and mounted in anti-friction sealed bearings and running in oil. The gearbox ratio shall be 50:1 or 25:1. The drive and idler sprockets shall be 6 tooth drop-forged steel sprockets keyed to the

1-1/2 inch diameter drive shaft and 1-1/4 inch diameter idler shaft. Both conveyor shafts shall have heavy-duty, dust-sealed, self-aligning ball bearings equipped with grease fittings.

A heavy-duty idler adjustment assembly shall provide 3 inches of adjustments for proper conveyor chain tension.

CONVEYOR CHAIN

Conveyor chain assembly to be protected by a dual **spring tensioner protection** to prevent binding damage by large clumps and rocks that may be forced under the conveyor chain assembly.

Note: Spring tension protection is available as an option from the manufacturer.

The conveyor chain shall be heat-treated 2.25-inch pitch self-cleaning, pintle-type 7/16-inch pins and tensile strength per strand of 21,000 pounds. The chain shall utilize a 1/4 inch X 1-1/2 inch X 18-3/4 inch crossbar welded on both the top and bottom to every other chain link making an overall width of twenty-two inches (22-3/8 inches). The crossbars will be positioned on approximately 4.5-inch centers.

SPINNER ASSEMBLY

Unit to include installed spreader hydraulic circuits with a hydraulically driven spinner.

The distributor disc shall be at least 18 inches in diameter made of 7-gauge abrasion resistant steel and have six replaceable formed 7 gauge carbon steel fins. This disc shall be mounted on a cast iron replaceable hub connected directly to the hydraulic motor. The material shall be guided from the conveyor to the distribution disc by means of an adjustable 10 gauge material deflector. This deflector shall control the spread pattern from left to right by controlling where the material drops on the disc. The entire spinner assembly shall be manufactured of not less than 10 gauge steel. There shall be four (4) spinner baffles, one front fixed, two side, and one rear. Baffles shall be adjustable without need of tools.

POWER DRIVE

The conveyor chain shall be driven through the worm drive gearbox by a low speed, high-torque "orbital type" hydraulic motor. This motor shall be directly coupled to the gearbox and protected from the elements by a cast iron housing. The spinner disc shall be driven by an independent low-speed high-torque "orbital type" hydraulic motor. This motor shall be directly coupled to the spinner-hub, thus eliminating any extra extension shaft or bearings.

TOP SCREENS

The top screens shall be constructed of 3/8 inch rods welded to form a 2.5 inch square mesh which is framed by a combination of 1/4 inch X 1-1/2 inch flat steel and 2 inch angle iron with the edge supports reinforced by 1/4 inch X 1 inch flat steel bars. The screens shall be manufactured in sections not over 45 inches wide. Each section shall be easily removable by using the "drop and lock" type hinge. Screens utilizing hardware that may vibrate loose will not be acceptable.

Spreader Controls:

The Spreader controls, (Two (2) each variable rate control knobs) shall be in cab mounted. Controls are to be pedestal mounted within an enclosed steel pedestal mount. Control enclosure to be ergonomically placed, not to interfere with plow or sander controls.

One (1) each, Conveyor, variable rate, hydraulic flow control.

One (1) each, Spinner, variable rate hydraulic flow control.

Area lighting:

Two (2) lights shall be mounted on the V-Hopper Sander unit, Flood lights, pointing down, on both sides, illuminating the area being sanded for the operator. Switch with indicator light in the mounted in the cab.

Finish:

All metal shall have the mill scale and oil removed and

the surface chemically cleaned in preparation for finish paint. These surfaces will be primed with a rust preventative primer. The paint shall be of high solid quality lead-free enamel, Omaha Orange in color. All painting shall be in conjunction with good commercial practices.

Spreader Mounting:

The V-Box Granular Material Spreader must be modified with a sub frame to allow Direct mounting to the Chassis Frame of the Truck.

Structural fabrication as required by the specific Sander and Chassis combination offered.

Mounting must be indexed to prevent slippage of the sander unit under unusual fore aft and side loads imposed during Snow and Ice control operations.

Factory installed Chassis accessories:

The following factory optional accessories shall be provided and installed on the completed Snow Plow unit:

Factory installed Air-Conditioning and integrated Heater defroster. High output cab heater.

Electrically **Heated Windshield**. Windshield to be a factory optional electrically heated windshield.

Cab Air suspension. Cab mounting to the frame of the truck shall be by factory optional air bag suspension.

Dual Two-tone Air horns with snow guards.

Factory installed AM / FM radio with Weather channel capability with installed speaker and antenna.

Heated expello valve on the wet tank.

Two (2) cup holders.

Hour meter:

Unit shall be equipped with an oil pressure activated

hour meter, "Hobbs" or Department Approved equal, mounted within the cab and visible to the driver in a normally seated position.

Tool Box:

A 24" X 24" X 40 inch Frame mounted Tool Box, hinged at the bottom with weather seal door and 90 degree retainer chains on both sides.

Right side, frame mounting.

Fire Extinguisher:

One (1) 5 lb. Dry chemical fire extinguisher, class-10 BC, securely mounted to the cab, easily accessible without undue ergonomic or operational interference.

Road warning flares:

One (1) set of (3) each Bi-directional, reflective, emergency hazard warning triangles, within a mounted containment case.

Hazard Lighting:

Amber Beacon: The truck shall be equipped with a mounted dual amber rotating beacon, Public Safety model PSE 6105H., switched in the cab.

Amber Beacon mounting is to be Post and Plate support mounted on the forward bulkhead of the V-Box Spreader Body. Mounting must be incorporated with the Pull tarp mounting assembly. It must be visible fore and aft without unnecessary or excessive height.

Aft mounted Amber Hazard flashers:

Two (2) each amber LED, high intensity flashers, oval, vertically oriented, switched in the cab with a lighted rocker switch indicating on/off status.

Auxiliary Plow / Work Lighting:

The truck must be equipped with auxiliary plow lights, mounted on the left and right side of the A Frame Base, to allow maximum forward visibility. The light fixtures must be combination amber flasher and Halogen flood lights. The assembly must be an: Auxiliary plow lighting pair, constructed of corrosion resistant material and switched in the cab, near the beacon switch.

Auxiliary Plowing lights must be switched to allow manual selection (Operators choice) of the chassis halogen headlights to prevent reflected light off the back of the plow in some conditions.

Six (6) flood lights installed around the roof for illumination. Switched in a Front/Rear on/off and individual left and right side illumination selection. All light switches shall be heavy-duty rocker type, positioned, labeled, and illuminated for easy driver identification and use.

Note: Sander area lighting is to be included as specified in the Spreader, "Area lighting" portion of this specification, page 30 .

Right and left-side manual "Snow Patrol" type spot lights 180 degree vertical 360 degree horizontal sweep with in cab controls. 300,000 Cp minimum.

Warranty:

The warranty period, terms and conditions, for this unit, and all provided accessories and attachments, shall be equal to the manufacturers standard warranty, or one (1) full year from the date the unit enters service with the County of Los Angeles. (whichever is longer).

Coverage shall include warranty against defects in materials or workmanship including all necessary parts, labor and transportation during the term of the warranty. This shall include vendor's travel time to, and from, the site of warranty work, shipping and transportation of all parts and labor required to honor the warranty.

The unit(s) described in these specifications may be used by the Department in all weather conditions under possible 24- hour a day operation. This service is acknowledged to be severe and to impose extreme demands upon this unit and its components.

The supplier of any equipment pursuant to these specifications shall therefore be advised of the possibility of severe work conditions in this service.

Warranties may exclude failure caused by physical abuse, or lack of proper maintenance and physical damage from external sources.

The unit is to be delivered with warranty documentation for the complete unit including all components installed.

The County of Los Angeles will operate and maintain said equipment in accordance with the manufacturer's standard service manual, provided with the unit at time of delivery.

Service directives and updates to the contents of the manuals, must be provided at no cost during the warranty period.

Manufacturer's Warranty:

The truck's warranty shall be unconditional three (3) years 36,000 miles parts and labor from the date the vehicle is placed in service. All other components shall be unconditional one (1) year, unlimited miles or manufacturers standard warranty (whichever is longer) from the date the equipment is placed in service. Warranty may exclude filters, normal replacement items, and physical damage from external sources.

Engine Emission Warranty:

The engine and its emission controls, shall meet all California requirements for five (5) years or 100,000 miles from the date the vehicle is placed in service. This shall include all parts and labor.

Front Axle, Transmission, Drive Lines And Rear Axles:

Shall be warranted for three (3) years or 36,000 miles of operation for defects due to defective workmanship or materials. This warranty shall include all parts and labor needed to repair any component listed in the warranty.

Extended Warranty Quote:

If extended warranties are available from the vehicle's manufacturer, please quote available extended warranty options here: Any additional cost for an extended warranty will NOT be considered in determining the lowest responsible bid.

Training:

Successful bidder shall provide a minimum of eight (8) hours of operator and maintenance training within five working days of date of delivery. Acceptance date of unit will only be after training session and complete mechanical checks are completed.

Quality Standards:

Chassis manufacturer must be ISO 9001 certified. A copy of the manufacturer's Certificate of Compliance must be submitted with the bid. This Quality Management System shall apply to the design of specialized heavy duty, all-wheel-drive trucks, and transport equipment, including front drive steer axles and transfer cases.

Local Support:

Because of the critical nature of this Plow Truck and the specialized design of the equipment, local service and technical support are considered an integral part of its purchase. Therefore, all bidders must be authorized dealers of the vehicle proposed, with service facilities within 150 miles of the end user. All bidders must be capable of servicing the entire unit including the chassis, and any auxiliary equipment provided thereon. To assure that the spirit of this requirement is met, the bidder shall include verification and proof in the bid package that they and chassis manufacturer have had an established and legally binding agreement for a minimum of 3 years.

DMV Registration:

DMV registration is required to be completed by the bidder.

All Department of Motor Vehicle paperwork is to be prepared in the name of:

LA CNTY DEPT PUBLIC WORKS
900 S. FREMONT AVE.
ALHAMBRA CA. 91803

The Vehicle must not be delivered to the Department until the DMV issued License plates are attached to the vehicle.

Weight Certificate:

Any chassis altered after leaving the factory must be accompanied by an individual, certified, weight certificate issued by a County Certified Scale, to the unit in its' delivered configuration.

The weights must comply with the California Vehicle code limitations.

Manuals:

Two (2) full sets of Parts and Service manuals shall be provided with the unit at time of delivery, with any "As built" amendments specific to the completed unit. Two complete hydraulic diagrams are also to be included.

Published brochures and specifications:

Each bid should include published brochures and specifications data for the unit being offered. Please include any supplemental publications covering any major component parts offered with the unit. Any exceptions or deletions or deviations from the published literature and brochures must be clearly indicated in the bid response, to properly evaluate the bid.

Pre- Delivery Inspection:

The vehicle will not be accepted for delivery unless a pre-delivery inspection has been completed prior to delivery. To schedule a pre-delivery inspection contact:
Robert Clendening
Power Equipment Specifications Writer
Los Angeles County Department of Public Works
900 South Fremont Ave.
Alhambra Ca. 91803

Telephone (626) 458-7322

Hours: 7:30 a.m. and 4:30 p.m.

Available Monday through Thursday. Offices are closed Friday.

All vehicles are subject to at least two inspections before payment can be made. The first is a pre-delivery inspection assuring that the vehicle is as specified, complete and fully functional. All discrepancy items will be noted and must be corrected prior to delivery. The second inspection is a delivery inspection assuring receipt of a new, complete, as specified and damage free unit, with all required documentation, including: license, weight, manufacturer and title.

Delivery:

Upon successful completion of a pre-delivery inspection, please deliver the unit to:

Los Angeles County Department of Public Works
Fleet Management Group

Equipment Coordinators Office

11282 South Garfield Ave., Downey Ca. 90242

Please coordinate delivery date and time with Mr.

Andres Navarro, Fleet Equipment Coordinator (562) 869-9312.

SPECIFICATIONS PREPARED BY:

Robert Clendening

Los Angeles County Department of Public Works

Telephone: (626) 458-7336

PEDIGREE:

AWARDED VENDOR TO SUPPLY A LIST OF COMPONENT PART NUMBERS AND CAPACITIES INCLUDING FUEL, LUBRICANTS, HYDRAULICS, COOLANT. ADDITIONALLY, VENDOR IS TO SUPPLY KEY CODES AND PART NUMBERS FOR AS BUILT: FILTERS, BELTS, HOSE NUMBERS, AND TIRE SIZES.